HIE Public Health Use Cases

Reporting Requirements	Data Example	Data Flow Example	Connected Entities
Reportable Disease Investigation and Surveillance	Food borne poisoining Infectious diseases (AIDS/HIV, TB, etc..) Laboratory results Medication history Demographics	In response to a suspect or confirmed case report of reportable disease case (food borne poisoning), the NYSDOH, NYCDOHMH and other public health authorities can query multiple RHIOs using a standard interface and receive additional clinical information regarding past medical history, treatment, etc. If the NYSDOH has a need for further investigation of certain cases, a data linker for the record of interest will be send back to RHIO to request for re-identification and additional information. With a distributed query architecture the NYSDOH can also request data on additional reportable disease conditions using updateable public health queries. {Example provided by New York HIE (HEAL NY Phase 5 Health IT)}	Hospitals Clinical service providers Laboratories Pharmacies Public Health agencies
Influenza Surveillance and Response	Influenza immunizations Laboratory results Demographics	For regular surveillance and in response to an influenza outbreak, RHIOs would send patient care and hospital resources data to the NYSDOH, NYCDOHMH and other public health authorities. This will allow epidemiologists to measure illness severity by monitoring the percentage of persons with influenza-like illness (ILI) that are admitted to hospitals and the hospital capacity/availability to respond to an influenza outbreak or pandemic. {Example provided by New York HIE (HEAL NY Phase 5 Health IT)} Support the use of EHRs in public health settings.	Hospitals Clinical service providers Laboratories Pharmacies Public Health agencies Community organzations
Asthma Surveillance	Medication history Laboratory results Clinical visits Eligibility Claims data Demographics	For ongoing asthma surveillance and intervention, the RHIO will provide linked data that includes: hospital inpatient, hospital outpatient, emergency department (ED), physician office visits, and pharmacy and lab data to the NYSDOH. This will allow public health staff to better measure asthma diagnosis and attack prevalence, health care utilization, disease management, care coordination, as well as monitor the trend of asthma hospitalizations, ED and physician office visits. This information will assist with identifying high-risk asthma populations and opportunities for effective interventions. {Example provided by New York HIE (HEAL NY Phase 5 Health IT)}	Hospitals Clinical service providers Laboratories Pharmacies Public Health agencies
Maternal and Infant Surveillance	Laboratory results Clinical visits Service Eligibility Demographics	For ongoing maternal and infant health surveillance and monitoring of patient's access to and utilization of the maternal and perinatal health care system, the RHIO will provide linked data that will include hospital inpatient, hospital outpatient, ED data, physician office visit, laboratory results and pharmacy data to the NYSDOH. This will allow public health staff to better monitor access to care, types of care, birth outcomes and follow up care for the mother and infant. This information will also allow public health staff to risk-adjust for the appropriate prenatal/perinatal services and birth outcomes and identify highrisk populations and opportunities for effective interventions. {Example provided by New York HIE (HEAL NY Phase 5 Health IT)}	Hospitals Clinical service providers Laboratories Pharmacies Public Health agencies Community organzations

HIE Public Health Use Cases

Reporting Requirements	Data Example	Data Flow Example	Connected Entities
Immunization Registry Vaccine Preventable Disease Surveillance	Demographics Clinical visits Clinical history Medication history Adverse events history Department of Education Demographics	Provides a central source of immunization records for public health monitoring and records that exist for consumers with information regarding where and when the vaccines were administered, and the medical record of the doctor or clinic where the vaccines were given. Allows schools access to immunization records. Facilitate interstate exchange of immunization records in the event of interstate school transfers.	Hospitals Clinical service providers Laboratories Pharmacies Public Health agencies Department of Education Department of Higher Education Consumers - Patients
Immunization Exemption Registry	Demographics Clinical visits Clinical history Medication history Adverse events history Department of Education Demographics	Provides a central source of immunization exemption records for publich health and school monitoriing and facililtates the legislatively required reporting of trends related to exemptions to vaccine preventable disease surveillance outbreaks. Allows schools a source for immunization exemption tracking across geographic locations.	Hospitals Clinical service providers Laboratories Pharmacies Public Health agencies Department of Education Department of Higher Education
Cancer Registry	Laboratory results Clinical visits Claims data Demographics Geographic data	Provide infrastructure for cancer registry data inter and intra-state transmission between entities in order to identify populations at increased risk of cancer, investigate public concerns of suspected excesses of cancer due to environmental or other factors, and monitor trends in cancer incidence and mortality so that appropriate and timely interventions are undertaken.	Hospitals Clinical service providers Public Health agencies Payers

HIE Public Health Use Cases

Reporting Requirements	Data Example	Data Flow Example	Connected Entities
Trauma System	Demographics Clinical summaries State Police crash summaries/reports	Provide infrastructure for trauma system communications between EMS and appropriately designated hospitals. Assist in meeting MIS related goals of trauma systems: • Review, and link, multiple sources of data (e.g., trauma registry, EMS, incident after-action reports, injury • Registry, death certificates, hospital administrative data sets, medical examiner's reports, and crash reports) • Identify and evaluate system best practices • Identify and evaluate gaps • Review trauma resource utilization • Track patient outcomes • Develop performance standards • Measure system performance against similar systems (benchmarking)	Hospitals EMS State Police

Population Level - Quality Monitoring and Reporting	Medication history
	Laboratory results
	Clinical visits
	Eligibility
	Claims data
	Demographics
		Population level quality monitoring. It emphasizes the public health involvement in secondary prevention of chronic diseases by consistent reporting rate of preventive measures (ex. rate of colonoscopy) Pre and post-implementation studies will be best in this case by the use of standard sets of quality measures .
		
		Hospital-based quality measures:
		  Automate data capture and reporting of HQA measures through EHRs in support of provider workflows
		  Communicate HQA measure data to external entities.
			Hospitals
			Payers
			Laboratories
			Pharmacies
			Clinicians
			Public Health Agencies

Quality Reporting - Clinical settings	Medication history
	Laboratory results
	Clinical visits
	Eligibility
	Claims data
	Demographics
		Clinician-level measures (Local Health Units):
		  Automate data capture and reporting of AQA measures through EHRs in support of provider workflows
		  Communicate AQA quality measure data to external entities for aggregation and reporting.
			Hospitals
			Payers
			Laboratories
			Pharmacies
			Clinicians
			Public Health Agencies - Local Health Units